

## **SYSTEM OPERATIONAL REQUEST: #2000-37**

- *The following State and Federal Salmon Managers have participated in the preparation and support this SOR: Oregon Department of Fish & Wildlife, U.S. Fish & Wildlife Service, and the Washington Department of Fish and Wildlife.*

**TO:**

<b>Brigadier General Strock</b>	<b>COE-NPD</b>
<b>William Branch</b>	<b>COE-Water Management</b>
<b>Cindy Henriksen</b>	<b>COE-RCC</b>
<b>Doug Arndt</b>	<b>COE-P</b>
<b>Col. Randall J. Butler</b>	<b>COE-Portland District</b>
<b>Lieut. Col. W.E. Bulen, Jr.</b>	<b>COE-Walla Walla District</b>
<b>J. William McDonald</b>	<b>USBR-Boise Regional Director</b>
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<b>Greg Delwiche</b>	<b>BPA-PG-5</b>

*Marvin S. Yoshinaka*

**FROM:** Marv Yoshinaka, Chairperson, Salmon Managers

**DATE:** December 21, 2000

**SUBJECT:** Flows Below Bonneville Dam

**SPECIFICATIONS:** Maintain a minimum instantaneous flow of 142 Kcfs, or higher if necessary to maintain a minimum tailwater elevation of 13.0 feet from now until April 10 when spring flows are provided as described in the Biological Opinion.

**JUSTIFICATION:**

During the period of chum salmon spawning (November 6-December 20), tailwater elevations at Bonneville Dam varied widely (10.5-14.6 feet) and flows ranged between 120 and 146 Kcfs during daylight hours, resulting in this request to provide incubation and emergence flows of 142 Kcfs and a tailwater elevation at Bonneville Dam of a minimum 13.0 feet. Peak chum salmon spawning occurred on December 1, after flows were raised above 130 Kcfs. Given the way the hydrosystem was operated during the spawning period it is likely that the majority of spawning occurred between 130 and 142 Kcfs, the flow at which the highest elevation redd was observed. The requested flow and tailwater elevation will protect the majority of chum salmon redds from becoming dewatered due to tidal fluctuation or backwater effects.

As we have stated previously, low flows in the Hardy and Hamilton creeks have resulted in an increased proportion of fish spawning in the mainstem, necessitating adequate protection for the mainstem habitat.

The Action Agencies should be cautious and operate the system conservatively until the January 1 runoff volume forecast is issued. Subsequently, the system should be operated in a manner that provides for the protection of chum salmon through the incubation and emergence period, and during the spill period for the Spring Creek Hatchery release. This may require that the flows not exceed 142 Kcfs or the 13.0-foot tailwater elevation during January to assure an adequate water supply is available to provide 142 Kcfs/13.0 foot tailwater during February and March, and achieve the April 10 upper rule curve.

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